

## **SITING OF RADIOACTIVE WASTE DISPOSAL FACILITIES - A SYNTHESIS OF INTERNATIONAL LEARNING**

### **Dr. Claudio Pescatore's Summary Remarks to the Blue Ribbon Commission on America's Nuclear Future (21 September 2010)**

#### **Main Points**

Successful disposal-facility siting implies creating the conditions for *continued ownership* of the facility over time. Acceptance of the facility at a single point in time is not good enough. Continued ownership implies the creation of conscious, constructive and durable relationships between the (most affected) communities and the waste management facility. Continued ownership by host communities follows from being comfortable about safety; feeling that they are not condoning a dubious practice, but one that is in tune with the broader interests of society in general; and that the facility will contribute to the quality of life of the community and region across generations.

Being comfortable about the technical safety of the facility requires a degree of familiarity and control; having peace-of-mind about the (safety of) facility requires trust in the waste management system and its actors as well some control over the decision making. Regulators are especially important players that need to be visible in the community. Their role in the service of people needs to be professed, verified and understood. Communities and regions that are familiar with nuclear power and have had a long, constructive relationship with its actors require less time for acquiring familiarity and control and for achieving trust, provided there is willingness to allow them some continued forms of influence.

The ideal site selection process is a stepwise process, which combines procedures for excluding sites that do not meet pre-identified criteria with procedures for identifying sites where near-by and more distant residents are willing to discuss acceptance of the facility. The Regional authorities are just as important as the local authorities.

Before approaching a potential siting region or community, there ought to have been clear results of national (and state) debates establishing the role of nuclear power in the energy mix, the magnitude of the ensuing waste commitment and its management end-points, as well as the allocation of the financial and legal responsibilities until the closure of the project (and even beyond, as the closure of the repository does not necessarily equate to the closure the issue, at least when siting is taking place). Once the waste inventories and type of facilities have been decided upon, there should be agreement that all significant changes will require a new decision making process. Successful siting is thus embedded in a larger system of decision making that includes nation- and/or state-wide debates on nuclear and waste management approaches, as well region-wide debates on the types of facility, the tolerable negative impacts and the desirable positive impacts.

Any proposed project has much better chances to move forward positively if the affected populations can participate in its definition, including, at the appropriate time, its technical details. The waste-disposal technical approach, safety standards, monitoring and mitigation measures, etc. ought to be finalised only after deliberations with the host community/region during the siting phase. This way, refinement of the proposed technical approach is shared and iterative. A voluntary

process, in which communities may withdraw from consideration for some time, improves the chances for community willingness to participate and for a sustainable outcome.

A partnering approach is generally best for developing the project with a host community. A variety of partnership organisations (which may incorporate NGOs, local government associations, units within or around local/regional governments) have been or are being set up in an increasing number of countries. Most often such organisations build their own expertise and influence the implementer's work. They collect, process and disseminate information on the facility and its impacts, monitor other players' performance and advise local governments. They also help identify socio-economic benefits aimed at compensating for potential losses and generally for supporting the well-being of the host communities. The result of collaboration builds social capital, which is good for the quality and sustainability of decisions. The whole process takes time and may be seen as overly lengthy by some. Time is however necessary to the non-technical parties to understand their interests and build the relevant competences. Not-rushing to a technical solution is also capital for ensuring a safe solution. Respect of the time dimension, both technical and societal, is fundamental for sustainable decision making. Decision making in discrete, well identified steps is recommended to help deal with the time dimension. During the whole process *openness, transparency, technical competence* and *procedural equity* are key conditions for credible discourse and for public acceptance of waste management programmes.

### **The OECD/NEA literature**

National radioactive waste management programmes are in various phases of siting final management facilities and rely on different technical approaches for different categories of waste. In all cases, it is necessary for institutional actors and the potential or actual host communities to build a meaningful, workable relationship. The OECD/NEA created its Forum on Stakeholder Confidence (FSC) in 2000 to explore means of ensuring an effective dialogue amongst all stakeholders and to strengthen confidence in decision-making and governance processes. The FSC promotes the sharing of international experience through topical sessions and studies and through national workshops and community visits. Lessons have been distilled with the concurrence of practitioners, the involved stakeholders and social/political science experts. FSC's many publications are all germane to the subject of siting and sustainable decision making and are available on the FSC website [www.nea.fr/fsc](http://www.nea.fr/fsc). Four FSC studies, in particular, warrant special attention:

The 2004 report "*Stepwise Approach to Decision Making for Long-term Radioactive Waste Management*" reviews the large accumulated experience and the results of the academic studies in the field of siting, both within and outside the nuclear field, over the previous 20 years. It distils the basic recommendations for sustainable decision making that the FSC still sponsors today.

The 2004 report "*Learning and Adapting to Societal Requirements*" synthesises countries' experience of relationship-building. In this report the **partnership approach** is cited further as a practical method for effective collaboration with local communities and informed consent.

The 2007 study "*Fostering a Durable Relationship between a Waste Management Facility and its Host Community*" summarises the expectations for sustained improvements to the quality of life of the affected communities and host regions, beyond the endowment of immediate economic benefits. The study highlights innovations in siting processes and in facility design that add value to the facility both in the short- and in the long-term.

Finally, the 2010 study “*Partnering for Long-Term Management of Radioactive Waste*” (based on a 2008-09 survey), documents the approach taken in 13 countries and the evolution of partnership arrangements. The study defines further the basic components of the partnership approach: various administrative formats of *collaboration with communities, community benefits, volunteerism, and veto arrangements*.

Two-page FSC flyers, available online, summarise the main findings of each of the above studies ([www.nea.fr/fsc](http://www.nea.fr/fsc), see rubric “FSC Flyers”).